III.

PROCESS FOR DEVELOPING PROPOSED SUGGESTED CONTROL MEASURE

Staff initiated activities relating to the update of the suggested control measure (SCM) in late 1997. These activities included: (1) a survey of architectural coatings; (2) regular meetings with district and U.S. EPA Region IX representatives; (3) an evaluation of durability and performance research for several coating categories; (4) an evaluation of the U.S. EPA's National Architectural Coatings Rule; (5) public workshops and meetings with individual manufacturers and other interested parties; (6) technology assessments on the coating categories; (7) an evaluation of alternatives in a draft program environmental impact report; and (8) a cost analysis.

A. 1998 ARCHITECTURAL COATINGS SURVEY

In late 1997, ARB staff began working with manufacturers and industry groups to develop a new survey of architectural and industrial maintenance coatings sold in California. The last such ARB survey was undertaken in 1993 (ARB, 1994) and surveyed sales and VOC contents of coatings sold in 1990. In February 1998, the ARB sent out the latest survey seeking 1996 sales data. Unlike previous surveys, this survey asked for information on the speciation of VOCs in an effort to identify what VOCs and non-VOC solvents are being used in architectural coatings.

Data entry and quality assurance checking were completed in February 1999, and a draft survey report was issued to all survey respondents and other interested parties. The draft survey report did not include speciation data, however, since staff was still evaluating this information. A workshop was held in March 1999 to receive comments on the survey results. The draft speciation data was completed in June 1999 and industry reviewed it. The final survey report was issued in September 1999 (ARB, 1999b). The final report included, overall, solvent-based, and water-based speciated data ranked by descending mass.

A discussion of the survey results and the estimated emissions from architectural coatings is found in Chapter V.

B. WORKING WITH DISTRICT AND U.S. EPA REPRESENTATIVES

In February 1998, staff began meeting with representatives of some of the districts that will use the SCM as the basis for their district architectural coating rules. The U.S. EPA has also been involved in these meetings to provide insight on harmonization with the National Rule and to increase the likelihood that the district rules based on the SCM will be approvable as State Implementation Plan revisions. The purpose of these meetings was to discuss: district needs and emission reductions needed from architectural coatings; findings of the 1998 architectural coatings survey; ongoing research and future research needs; specific SCM language; the scope and content of a statewide environmental assessment; and flexibility options for manufacturers to comply with coatings regulations. To date, 18 meetings and conference calls have been held.

C. PUBLIC PROCESS

In developing the proposed SCM, ARB held eight public meetings attended by representatives from industry (coatings manufacturers, ingredient manufacturers, coatings contractors, user groups, and trade associations), local districts, the U.S. EPA, and other interested parties. These public meetings were held on May 27 and August 20, 1998, on March 30, June 3, July 1, September 8, and December 14, 1999, and March 16, 2000. The two meetings in 1998 focused on general discussions of issues and flexibility options, while the March 30, 1999, workshop focused specifically on the draft survey report. The July 1, 1999, meeting was also a Scoping Meeting held to solicit input on the Initial Study for the environmental impacts analysis. The remaining workshops focused on the SCM and/or the averaging compliance option. A chronology of the public meetings held is shown in the following table.

Table III-2
Chronology of Architectural Coatings Suggested Control Measure

Date	Meeting	Location
May 27, 1998	1st Public Workshop	Sacramento, CA
August 20, 1998	2nd Public Workshop	Sacramento, CA
March 30, 1999	3rd Public Workshop	Diamond Bar, CA
June 3, 1999	4th Public Workshop	Sacramento, CA
July 1, 1999	5th Public Workshop	Sacramento, CA
September 8, 1999	6th Public Workshop	Diamond Bar, CA
December 14, 1999	7th Public Workshop	Diamond Bar, CA
March 16, 2000	8th Public Workshop	Sacramento, CA

Workshop announcements, SCM revisions, reports, surveys, workshop summaries, workshop slide presentations, and lists of workshop attendees were regularly posted on the ARB's Internet site. Copies of workshop announcements are contained in Appendix D.

In addition to the public workshops, manufacturers held meetings with ARB staff to share individual concerns and data. About 40 such meetings with manufacturers or trade groups have occurred.

D. EVALUATION OF THE NATIONAL RULE

On August 14, 1998, the U.S. EPA promulgated the final version of their National Volatile Organic Compound Emission Standards for Architectural Coatings (National Rule) (see 63 *Federal Register* No. 176, September 11, 1998). The National Rule took effect on September 13, 1999.

Staff's analysis of the impacts of incorporating the National Rule into the SCM focused primarily on: technical assessment of the limits; a careful evaluation of the differences in

definitions; and the impacts of the flexibility provisions. Our goal was to achieve the maximum feasible reduction in VOC emissions while aligning the SCM with the National Rule.

The National Rule applies only to manufacturers and importers of architectural coatings, while the SCM applies to manufacturers, distributors, and users of architectural coatings. The National Rule contains 61 categories, including more than 20 categories that are not included in most district rules.

It is important to point out that, for the most part, California districts will not see additional emission reductions from the National Rule, since the majority of the national limits are equal to or higher than districts' existing limits. Accordingly, districts need to adopt lower limits in their rules, to improve air quality and achieve the State and federal ozone standards. In fact, the National Rule specifically allows states or local governments to adopt more stringent emission limits.

The National Rule contains flexibility provisions that are not in the SCM: (1) an exceedance fee provision; (2) a tonnage exemption; and (3) a recycled coatings compliance option. For compliance with these provisions, manufacturers and importers must keep specified records and submit annual reports to the appropriate regional U.S. EPA office.

The exceedance fee provision allows manufacturers and importers to comply with the rule by paying a fee in lieu of meeting the VOC content limits. The tonnage exemption allows manufacturers and importers to sell or distribute limited quantities of architectural coatings that do not comply with the VOC content limits and for which no exceedance fee is paid.

The recycled coatings compliance option allows calculation of an adjusted-VOC content for coatings that contain a certain percentage of post-consumer coating. Containers of recycled architectural coatings, in addition to the labeling requirements, must include on the label or lid a statement of the percentage, by volume, of post-consumer coating content.

The National Rule's flexibility options were designed primarily for states to administer. We did not include an exceedance fee or tonnage exemption in the proposed SCM because we wanted to maximize emission reductions. Chapter V of the Final Program EIR contains more detail about our reasons for considering the exceedance fee to be an infeasible alternative as the basis for the SCM project. The description of recycled coatings in Chapter VI of the staff report contains more information on why the National Rule's recycled coating option was not included in the proposed SCM.

E. TECHNOLOGY ASSESSMENT

A technology assessment was conducted for all the coating categories included in the SCM. In addition, the National Rule categories that were not included in the proposed SCM were also studied. Some of the sources of information utilized in the technology assessment included: the ARB 1998 survey data; manufacturers' brochures, product data sheets, product labels, and material safety data sheets; Internet websites; books and trade magazines; technical

reports; training manuals; test results and specifications; U.S. EPA's Background Information Document (U.S. EPA, 1998); South Coast AQMD staff reports from Rule 1113 amendments (South Coast AQMD, 1996; South Coast AQMD, 1999); interviews with manufacturers and users of coatings; district rules and discussions with district staff; the 1989 SCM technical support document (ARB, 1989); and information from trade associations.

For eleven categories represented in the proposed SCM, staff reviewed detailed information from manufacturers pertaining to numerous compliant and non-compliant coatings. These are the categories for which we are proposing limits that are more stringent than found in most district rules. Staff compared technical data provided by the manufacturers for coatings in each category to assess coverage, dry times, durability (adhesion, abrasion resistance, chemical resistance, impact resistance, scrubability, etc.), solids content by volume, and other characteristics. These data are summarized in Appendix E of the Draft Program EIR.

In addition, staff viewed test panels and evaluated laboratory data from the NTS study to better assess performance of compliant coatings compared to non-compliant coatings. Some manufacturers have also forwarded actual laboratory test data and third party testing data, which were utilized in the technical evaluation of the categories. The results of the Harlan study (ARB, 1995) were also considered.

During November 1999, ARB staff met with representatives of seven resin manufacturers. These meetings provided staff an opportunity to become familiar with the latest developments in resin technology, and to discuss applicability of a variety of resin systems to specific types of coatings.

The technical basis for the SCM is discussed in Chapter IV, and the detailed results of the technology assessments by category are reported in Chapter VI.

F. EVALUATION OF ALTERNATIVES IN THE DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT (EIR)

Under the California Environmental Quality Act (CEQA), project alternatives that are determined to be feasible and infeasible should be identified. Alternatives include measures for attaining the objectives of the proposed project and provide a means for evaluating the comparative merits of each alternative. An alternative evaluating the merits of not having the project must also be included. The alternatives considered feasible are then evaluated for potential environmental impacts that may result from their implementation.

The alternatives rejected as being infeasible include:

1. Performance-based standards, i.e., emission standards based on performance of the coating;
2. Seasonal regulation, i.e., VOC limits for "high ozone season" only;
3. Regional regulation, i.e., exemption from VOC limits for certain districts;

4. Exceedance fees, i.e., allowing manufacturers to pay a fee in lieu of meeting VOC limits;
5. Low vapor pressure exemption, i.e., exempting VOCs with low vapor pressures in determining the overall VOC content of a coating; and
6. Reactivity-based VOC limits, i.e., VOC limits based on the ozone formation potential.

The alternatives considered feasible include:

1. No project, i.e., assuming that the SCM will not be adopted;
2. Extended compliance deadlines, i.e., extending all the effective dates of the VOC limits to January 1, 2004;
3. Further reduction of VOC content limits, i.e., adopting the "final" limits of the May 1999, South Coast AQMD Rule 1113 amendments (those with effective dates of 2005-2008); and
4. Product line averaging, i.e., allowing manufacturers to make products that have VOC contents higher than the proposed VOC limits in the SCM, if they compensate with other products that are below the proposed VOC limits.

G. COST ANALYSIS

Although it is not required under CEQA, the economic impact of the SCM on affected businesses and consumers was evaluated and quantified. In December 1999, the ARB sent a cost survey to manufacturers who responded to the 1998 architectural coatings survey (ARB, 1999b). The data received from this survey was one of the sources of information used to perform a cost-effectiveness analysis and a business impacts analysis. The cost-effectiveness analysis measures how cost-efficient the proposed SCM will be in reducing VOCs relative to other regulatory programs. The business impacts analysis evaluates the impacts on profitability, employment, and competitiveness to California businesses, consumers, and government agencies.

Staff also performed research to identify typical non-complying and complying formulations for 11 coating categories, and costs were identified for these formulations. The categories selected were those for which we are proposing VOC limits that are more stringent than the predominant limit in existing district rules. Examples of sources of information for the cost analysis were: the December 1999 cost survey; the 1998 architectural coatings survey; product data sheets; material safety data sheets; example formulations provided by manufacturers or resin suppliers; district staff; trade magazines; Internet searches; and patents. In addition, staff performed shelf cost surveys to determine retail prices of a variety of complying and non-complying products.

Results of the cost analysis are reported in Chapter VIII.

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